INDEX

PAGE

ADDAMS, HOMER, Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers....84, 97
Address on Dehydration, by H. C. GORE.... 323
Address on Fuel Conservation, by L. P. BRECKENRIDGE.... 51
Address on Fuel Conservation, by GEORGE W. MARTIN 61
Air Washers, Fuel Consumption Required for Operation of—Topical Discussion 425
ALLEN, JOHN R., What We Do and Don't Know About Heating..... 99
Discussion of Report of Committee on Standard Method of Testing Radiators 120
ALT, HAROLD L., Relation of Hot Water Service Heating to Various Types of Buildings 241
Annual Meeting, The Twenty-Fourth 1
Answering Fuel Needs with a New Heating System, by GEO. S. BARROWS 143
ARMAGNAC, A. S., Discussion of the Basis of Limitation of Domestic Fuel Supply 76
Discussion of Economy in Heating.... 397
Discussion on High Temperature Drying 24
Discussion of Reasons for Failures of Heating Systems..... 377
BAHNSON, FRED. F., Discussion of Address on Fuel Conservation, by GEO. W. MARTIN 66, 68, 70
Discussion of The Temperature of Evaporation 49, 50
BAKER, CHARLES WHITING, A Campaign for Fuel Economy in House Heating 379
Reforms in the Design of Hot-Air Heating Plants Needed to Compete with Other Systems 403
BALDWIN, W. J., Discussion of Engineering of Warm-Air Furnace Heating 140
Discussion of New Gas Heating System.... 160
Discussion of What We Do and Don't Know About Heating.... 109
BARROWS, GEO. S., Answering Fuel Needs with a New Heating System.. 143
Basis for Limitation of Coal for Domestic Purposes.... 273
Basis of Limitation of Domestic Fuel Supply.... 71
Bibliograph on Food Drying and Dryers.... 352
BISHOP, CHAS. R., Discussion of Basis of Limitation of Domestic Fuel Supply 75
Boilers, Low Pressure Heating, Report of Committee on Code for Testing 81
BOOTH, CHARLES A., Discussion of Basis for Limitation of Coal for Domestic Purposes 280
Discussion of Fuel Consumption Required for Operation of Air Washers 427

PAGE

BRECKENRIDGE, L. P., Address on Fuel Conservation..... 51
Save Coal in the Home..... 58
Discussion of Address on Fuel Conservation, by GEO. W. MARTIN 65, 68, 69
Discussion of Basis of Limitation of Domestic Fuel Supply, 72, 74, 75, 76, 78, 79
Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 85, 88, 89, 90, 91, 93, 98
Buildings, Relation of Hot Water Service Heating to Various Types of, by HARLOD L. ALT..... 241
Bureau of Mines, Report of Committee to Confer with..... 273
Campaign for Fuel Economy in House Heating, A, by CHARLES WHITING BAKER 379
CARPENTER, ROLLA C. 430
CARRIER, W. H., The Temperature of Evaporation..... 25
Discussion of Economy in Heating 398
Discussion of Fuel Economy in House Heating.....384, 385
Discussion of Reasons for Failure of Heating Systems..... 377
Discussion of High Temperature Drying 22, 23
Discussion of What We Do and Don't Know About Heating.. 108
CARY, A. A., Discussion of Hot Water Service Heating..... 252
Discussion of The Preservation of Hot Water Supply Pipe..... 236
CHAPMAN, FRANK T., Discussion of the Basis of Limitation of Domestic Fuel Supply 72, 75, 76, 78, 80
Discussion of The Temperature of Evaporation.....48, 49, 50
Chemical Composition of Fresh and Dried Vegetables..... 351
CHESTER, THOMAS, Ventilation of Mines 297
Discussion of Basis for Limitation of Coal for Domestic Purposes 280
Discussion of Open Window Ventilation of Schools.....321, 322
CHEW, FRANK K., Discussion of Basis for Limitation of Coal for Domestic Purposes 276
Discussion of Basis of Limitation of Domestic Fuel Supply..76, 79
Discussion of Economy in Heating.....397, 398, 399, 400, 401, 402
Discussion of Engineering of Warm-Air Furnace Heating..139, 142
Discussion of Fuel Economy in House Heating.....382, 384, 385
Discussion of High Temperature Drying..... 24
Discussion of Open Window Ventilation of Schools..... 317
Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 84, 98
Discussion of Ventilation of Mines.....313, 316
Coal for Domestic Purposes, Basis for Limitation of..... 273
Coal in the Home, Save, by L. P. BRECKENRIDGE and E. H. LOCKWOOD.... 58
Coal, Notes on Spontaneous Combustion of, U. S. Bureau of Mines..... 420
Code for Testing Low Pressure Heating Boilers, Report of Committee on 81
COLLAMORE, R., Discussion of Basis for Limitation of Coal for Domestic Purposes 280, 282
Discussion of Reasons for Failure of Heating Systems..... 378
Discussion of Spontaneous Combustion of Coal..... 424
Discussion of Ventilation of Mines 314

PAGE
Combustion, Spontaneous, by M. W. FRANKLIN 413
Committee on Code for Testing Low Pressure Heating Boilers, Report of 81
Committee to Confer with Bureau of Mines, Report of 273
Committee on Research Bureau, Progress Report of 269
Committee on Research Bureau, Report of 4
Committee on Standard Method of Testing Radiators, Report of 113
Community Dryers—Topical Discussion 359
Conservation, Dust; Its Universality, Elimination and, by E. R. KNOWLES 165
Conservation, Fuel, Address on, by L. P. BRECKENRIDGE 51
Conservation, Fuel, Address on, by GEORGE W. MARTIN 61
CROSS, L. J., Discussion of Address on Dehydration 327
DAVIS, BERT C., Discussion of Engineering of Warm-Air Furnace Heating 137
DAVIS, JAS. H., Discussion of Address on Dehydration 331, 332
Discussion of Basis for Limitation of Coal for Domestic
Discussion of Community Dryers 366
Discussion of Economy in Heating 397
Discussion of The Electric Method of Testing Radiators 294
Discussion of New Gas Heating System 157
Discussion of Open Window Ventilation of Schools 317, 321
Discussion of Progress Report of Committee on Research Bureau 270
Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 95
DEBOOS, F. A., Discussion of Basis for Limitation of Coal for Domestic Purposes 276
Discussion of Fuel Consumption Required for Operation of Air Washers 425
Dehydration, Address on, by H. C. GORE 323
Design of Hot-Air Heating Plants, Reforms Needed to Compete with Other Systems, by CHARLES WHITING BAKER 403
Domestic Fuel Supply, Basis of Limitation of 71
Domestic Purposes, Basis for Limitation of Coal for 273
DOUGHERTY, P. J., Discussion of Basis for Limitation of Coal for Domestic Purposes 277
Discussion of Economy in Heating 400
Discussion of Engineering of Warm-Air Furnace Heating 139
Discussion of New Gas Heating System 161
Discussion of Reasons for Failures in Heating Systems 376
Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 87, 94, 95
Dryers, Community—Topical Discussion 359
Drying and Dryers, Food, Bibliograph on 352
Drying, High Temperature, by BURT S. HARRISON 7
Drying, Symposium on 323
Dust; Its Universality, Elimination and Conservation, by E. R. KNOWLES 165
Economy in Heating, by KONRAD MEIER 387

PAGE

EHRLICH, M. WILLIAM, The Engineering of Warm-Air Furnace Heating. 121
Discussion of Address on Fuel Conservation, by L. P. BRECKENRIDGE 60
Discussion of Basis for Limitation of Coal for Domestic Purposes 282
Discussion of Basis of Limitation of Domestic Fuel Supply.... 74
Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 97

Electric Method of Testing Radiators, The, by J. E. EMSWILER 285

Elimination and Conservation, Dust; Its Universality, by E. R. KNOWLES 165

EMSWILER, J. E., The Electric Method of Testing Radiators..... 285
Measurements of Low Pressure Steam used for Heating the Buildings of the University of Michigan..... 257
Discussion of Ventilation of Mines..... 313

Engineering of Warm-Air Furnace Heating, by M. WILLIAM EHRLICH... 121

EVANS, W. A., Discussion of Hot Water Service Heating..... 252

Evaporation, The Temperature of, by W. H. CARRIER..... 25

Failures of Heating Systems, Reasons for, by J. D. HOFFMAN 367

FLEISHER, W. L., Food Dryers and the Use of School Houses for Drying 339
Discussion of Reasons for Failure of Heating Systems..... 376

Food Drying and Dryers, Bibliograph on..... 352

Food Dryers and the Use of School Houses for Drying, by W. L. FLEISHER 339

FRANKLIN, M. W., Spontaneous Combustion..... 413

FRASER, WILLIAM G., Discussion of Spontaneous Combustion of Coal.... 423

Fuel Consumption Required for Operation of Air Washers—Topical Discussion 425

Fuel Conservation, Address on, by L. P. BRECKENRIDGE..... 51

Fuel Conservation, Address on, by GEORGE W. MARTIN..... 61

Fuel Economy in House Heating, A Campaign for, by CHARLES WHITING BAKER 379

Fuel Needs, Answering with a New Heating System, by GEO. S. BARROWS 143

Fuel Supply, Domestic, Basis of Limitation of 71

FULLER, CHAS. A., Discussion of the Basis of Limitation of Domestic Fuel Supply 79

Furnace Heating, Warm-Air, The Engineering of, by M. WILLIAM EHRLICH 121

GANT, H. P., Discussion of the Basis of Limitation of Domestic Fuel Supply 78

GORE, H. C., Address on Dehydration..... 323
Discussion of Food Dryers and School Houses for Drying.... 356
Discussion of The Temperature of Evaporation..... 50

GRUMBEIN, I. F., Discussion of Engineering of Warm-Air Furnace Heating 142

HARDING, L. A., Discussion of The Electric Method of Testing Radiators 295
Discussion of Open Window Ventilation of Schools..... 321

PAGE

HARRISON, B. S., High Temperature Drying 7
Discussion of Address on Dehydration 335, 337, 338
Discussion of Food Dryers and School Houses for Drying..... 356
Discussion of New Gas Heating System..... 161
Discussion of Spontaneous Combustion of Coal..... 424
Discussion of The Temperature of Evaporation.....46, 47, 48, 49
HART, H. M., Discussion of Address on Fuel Conservation, by GEO. W. MARTIN 69
Discussion of Food Dryers and School Houses for Drying..... 357
Discussion of Economy in Heating..... 402
Discussion of Fuel Economy in House Heating..... 385
Discussion of Hot Water Service Heating..... 252
Discussion of New Gas Heating System..... 158
Discussion of Progress Report of Committee on Research Bureau 272
Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 86
Discussion of Report of Committee on Standard Method of Testing Radiators 120
Discussion of The Temperature of Evaporation..... 47
Heating Boilers, Low Pressure, Report of Committee on Code for Testing 81
Heating, Economy in, by KONRAD MEIER..... 387
Heating, House, A Campaign for Fuel Economy in, by CHARLES WHITING BAKER 379
Heating Plants, Hot-Air, Reforms in the Design Needed to Compete with Other Systems, by CHARLES WHITING BAKER..... 403
Heating the Buildings of the University of Michigan, Measurements of Low Pressure Steam used for, by J. E. EMSWILER..... 257
Heating System, New, Answering Fuel Needs with a, by GEO. S. BARROWS 143
Heating Systems, Reasons for Failures of, by J. D. HOFFMAN..... 367
Heating, Warm-Air Furnace, The Engineering of, by M. WILLIAM EHRLICH 121
Heating, What We Do and Don't Know About, by JOHN R. ALLEN..... 99
High Temperature Drying, by BURT S. HARRISON..... 7
HOFFMAN, J. D., Reasons for Failures of Heating Systems..... 367
Discussion of Basis for Limitation of Coal for Domestic Purposes 276
Discussion of Community Dryers 365
Discussion of Economy in Heating 398
Discussion of Fuel Economy in House Heating..... 383
Discussion of Open Window Ventilation of Schools..... 320
Home, Save Coal in the, by L. P. BRECKENRIDGE and E. H. LOCKWOOD.... 58
Hot-Air Heating Plants, Reforms in the Design of, Needed to Compete with Other Systems, by CHARLES WHITING BAKER..... 403
Hot Water Service Heating, Relation to Various Types of Buildings, by HAROLD L. ALT 241
Hot Water Supply Pipe, The Preservation of, by F. N. SPELLER and R. G. KNOWLAND 217

PAGE

House Heating, A Campaign for Fuel Economy in, by CHARLES WHITING BAKER 379
HUDSON, W. T., Discussion of New Gas Heating System..... 161
ISSERTELL, H. G., Discussion of Basis for Limitation of Coal for Domestic Purposes 276, 280
KELLOGG, A. S., Memorandum Concerning Fruit and Vegetable Dryers... 359
KENT, WILLIAM 429
KIMBALL, D. D., Discussion of Address on Fuel Conservation, by GEO. W. MARTIN 68
KNIGHT, I. W., Discussion of New Gas Heating System 157, 158, 162
KNOWLAND, R. G., The Preservation of Hot Water Supply Pipe..... 217
KNOWLES, E. R., Dust; Its Universality, Elimination and Conservation.. 165
KOITHAN, W. S., Discussion of High Temperature Drying..... 24
Discussion of The Temperature of Evaporation..... 48
Limitation of Coal for Domestic Purposes, Basis for..... 273
Limitation of Domestic Fuel Supply, Basis of..... 71
LOCKWOOD, E. H., Save Coal in the Home..... 58
Low Pressure Heating Boilers, Report of Committee on Code for Testing 81
Low Pressure Steam used for Heating the Buildings of the University of Michigan, Measurements of, by J. E. EMSWILER..... 257
LYLE, J. I., Discussion of Address on Dehydration.....336, 337
Discussion of Basis for Limitation of Coal for Domestic Purposes 276, 279, 282
Discussion of Dust; Its Universality, Elimination and Conservation 216
Discussion of The Electric Method of Testing Radiators..... 295
Discussion of Engineering of Warm-Air Furnace Heating..... 142
Discussion of Progress Report of Committee on Research Bureau 270, 272
Discussion of Reasons for Failure of Heating Systems..... 377
Discussion of Report of Committee on Standard Method of Testing Radiators 120
Discussion of Ventilation of Mines 314
MCINTIRE, J. F., Discussion of the Basis of Limitation of Domestic Fuel Supply 78
Discussion of Dust; Its Universality, Elimination and Conservation 216
Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 87, 91, 93, 94
MARTIN, GEO. W., Address on Fuel Conservation..... 61
Discussion of Address on Fuel Conservation, by L. P. BRECKENRIDGE 59
MATTHEWS, F. E., Discussion of The Basis of Limitation of Domestic Fuel Supply 78
Measurements of Low Pressure Steam used for Heating the Buildings of the University of Michigan, by J. E. EMSWILER..... 257
Meeting, Semi-Annual, 1918 265
Meeting, The Twenty-Fourth Annual..... 1
MEIER, KONRAD, Economy in Heating..... 387

PAGE
Memorandum Concerning Fruit and Vegetable Dryers, by ALFRED S. KELLOGG 359
MEMORIAM, IN 428
MERKT, T. B. J., Discussion of Dust; Its Universality, Elimination and Conservation 216
Discussion of New Gas Heating System 158
Mines, Ventilation of, by THOMAS CHESTER..... 297
Needs, Fuel, Answering with a New Heating System, by GEO. S. BARROWS 143
New Heating System, Answering Fuel Needs with a, by GEO. S. BARROWS 143
NICHOLS, G. B., Discussion of Hot Water Service Heating..... 250
Discussion of The Preservation of Hot Water Supply Pipe..... 235
Discussion of What We Do and Don't Know About Heating.... 106
Notes on Spontaneous Combustion of Coal, U. S. Bureau of Mines..... 420
OBERT, C. W., Discussion of Spontaneous Combustion of Coal..... 424
OHMES, A. K., Discussion of New Gas Heating System..... 157
Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 86
Open Window Ventilation of Schools—Topical Discussion..... 317
Operation of Air Washers, Fuel Consumption Required for—Topical Discussion 425
OWITZ, N., Discussion of Address on Dehydration....329, 331, 332, 336, 337
Discussion of Community Dryers 365, 366
Discussion of Food Dryers and School Houses for Drying..355, 357
PHEGLEY, FRANK G., Discussion of Progress Report of Committee on Research Bureau 272
Pipe, Hot Water Supply, The Preservation of, by F. N. SPELLER and R. G. KNOWLAND 217
PRATT, W. E., Discussion of Engineering of Warm-Air Furnace Heating 137, 138
PRENTICE, D. B., Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 95
Preservation of Hot Water Supply Pipe, The, by F. N. SPELLER and R. G. KNOWLAND 217
Program of Semi-Annual Meeting, 1918 266
Program of The Twenty-Fourth Annual Meeting..... 2
Progress Report of the Committee on Research Bureau..... 269
Radiators, The Electric Method of Testing, by J. E. EMSWILER..... 285
Radiators, Report of Committee on Standard Method of Testing..... 113
Reasons for Failures of Heating Systems, by J. D. HOFFMAN..... 367
Reforms in the Design of Hot-Air Heating Plants Needed to Compete with Other Systems, by CHARLES WHITING BAKER 403
Relation of Hot Water Service Heating to Various Types of Buildings, by HAROLD L. ALT 241
Report of Committee on Code for Testing Low Pressure Heating Boilers 81
Report of Committee to Confer with Bureau of Mines..... 273
Report of Committee on Research Bureau..... 4
Report of Committee on Standard Method of Testing Radiators..... 113
Report, Progress, Committee on Research Bureau 269
Research Bureau, Progress Report of Committee on..... 269

PAGE
Research Bureau, Report of Committee on..... 4
RESSLER, M. H., Discussion of Engineering of Warm-Air Furnace Heating 140
ROSENOW, H. F., Discussion of The Electric Method of Testing Radiators 294
Save Coal in the Home, by, L. P. BRECKENRIDGE and E. H. LOCKWOOD.... 58
School Houses for Drying, Food Dryers and the Use of, by W. L. FLEISHER 339
Schools, Open Window Ventilation of—Topical Discussion..... 317
SCOTT, C. E., Discussion of the Basis of Limitation of Domestic Fuel Supply 78
Semi-Annual Meeting, 1918..... 265
SEWARD, P. H., Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 89, 90, 91
SPELLER, F. N., The Preservation of Hot Water Supply Pipe..... 217
Spontaneous Combustion, by M. W. FRANKLIN..... 413
Spontaneous Combustion of Coal, Notes on, U. S. Bureau of Mines.... 420
Standard Method of Testing Radiators, Report of Committee on..... 113
Steam, Low Pressure, used for Heating the Buildings of the University of Michigan, Measurements of, by J. E. EMSWILER..... 257
STILL, FRED R., Discussion of Address on Dehydration..... 332
Discussion of Address on Fuel Conservation, by GEO. W. MARTIN 65
Discussion of Basis for Limitation of Coal for Domestic Purposes 281, 282
Discussion of Basis of Limitation of Domestic Fuel Supply, 71, 78, 79, 80
Discussion of Community Dryers 359, 364, 366
Discussion of Economy in Heating 399, 401, 402
Discussion of The Electric Method of Testing Radiators..... 295
Discussion of Engineering of Warm-Air Furnace Heating, 139, 140, 141, 142
Discussion of Fuel Consumption Required for Operation of Air Washers 425, 427
Discussion on High Temperature Drying..... 22
Discussion of Open Window Ventilation.....317, 322
Discussion of Progress Report of Committee on Research Bureau 272
Discussion of Reasons for Failures of Heating Systems....377, 378
Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 85, 86, 94, 97, 98
Discussion of Spontaneous Combustion of Coal 423, 424
Discussion of The Temperature of Evaporation..... 46
Discussion of Ventilation of Mines.....313, 314
Supply, Domestic Fuel, Basis of Limitation of..... 71
Supply Pipe, Hot Water, The Preservation of, by F. N. SPELLER and R. G. KNOWLAND 217
Symposium on Drying 323
Temperature Drying, High, by BURT S. HARRISON..... 7
Temperature of Evaporation, The, by W. H. CARRIER..... 25

PAGE

Testing Low Pressure Heating Boilers, Report of Committee on Code for 81
Testing Radiators, The Electric Method of, by J. E. EMSWILER..... 285
Testing Radiators, Report of Committee on Standard Method of..... 113
THOMAS, M. F., Discussion of Fuel Consumption Required for Operation of Air Washers 426
THOMAS, HERBERT G., Discussion of Spontaneous Combustion of Coal.. 423
TIMMIS, W. S., Discussion of Address on Fuel Conservation, by GEO. W. MARTIN 69
Discussion of Basis for Limitation of Coal for Domestic Purposes 281
Discussion of the Basis of Limitation of Domestic Fuel Supply, 77, 80
Discussion of Food Dryers and School Houses for Drying..355, 357
Discussion of Fuel Economy in House Heating..... 383
Discussion of Open Window Ventilation of Schools.....320, 322
Discussion of Reasons for Failure of Heating System..... 378
Discussion of Report of Committee on Code for Testing Low Pressure Heating Boilers 87, 96, 98
Discussion of Ventilation of Mines..... 314
Types of Buildings, Relation of Hot Water Service Heating to, by HAROLD L. ALT 241
Universality, Elimination and Conservation, Dust; Its, by E. R. KNOWLES 165
University of Michigan, Measurements of Low Pressure Steam used for Heating the Buildings of the, by J. E. EMSWILER..... 257
Use of School Houses for Drying, Food Dryers and the, by W. L. FLEISHER 339
Vegetables, Fresh and Dried, Chemical Composition of..... 351
Ventilation of Mines, by THOMAS CHESTER..... 297
Ventilation of Schools, Open Window—Topical Discussion..... 317
Warm-Air Furnace Heating, The Engineering of, by M. WILLIAM EHRLICH 121
WEST, PERRY, Discussion of Basis for Limitation of Coal for Domestic Purposes 280
Discussion of The Electric Method of Testing Radiators..... 295
Discussion of Open Window Ventilation of Schools..... 318
What We Do and Don't Know About Heating, by JOHN R. ALLEN..... 99